AMENDMENTS TO THE CLAIMS

Listing of claims in the case

The following listing of claims replaces all prior versions:

1. (Currently Amended) A method of performing an audit of a network, said method comprising the steps of:

a) querying a plurality of devices in said network for device configuration information, wherein said plurality of devices comprise at least one node which is specified by said configuration information;

b) based on a response from said plurality of devices to said queries of said step a), issuing a plurality of queries to retrieve status information from a plurality of nodes in said network;

c) analyzing the responses to said status queries according to [[a]] sets of rules to create network audit information, wherein said analyzing comprises determining a ranking of nodes of the plurality of devices, and wherein said ranking comprises separate rankings for a plurality of categories including at least two of: faults, performance, capacity planning, and topology; and

d) reporting said network audit information including said ranking of nodes for said at least two categories.

2. (Original) The method of Claim 1 wherein said step c) comprises the step of:

c1) including advice based on said analysis in said network audit information.

3. (Original) The method of Claim 1 wherein said step d) comprises the step of:

d1) transferring said network audit information to a user.

4. (Original) The method of Claim 3 wherein said network audit information is presented in a table selected the group consisting of: hardware summary, fault management, performance analysis, configuration management, and capacity planning.

5. (Original) The method of Claim 1 wherein said step b) comprises the step of:

b1) repeating a query to retrieve status information from a first node of a first device of said plurality of devices at a pre-determined interval.

6. (Original) The method of Claim 1 wherein:

said step c) comprises the step of determining that a condition exists at a first node of a first device of said plurality of devices that requires corrective action; and

said step d) comprises the step of reporting said condition.

7. (Original) The method of Claim 1 wherein:

said step c) comprises the step of determining that a possible problem exists at a first node of a first device of said plurality of devices; and

said step d) comprises the step of reporting said possible problem.

8. (Previously Presented) The method of Claim 1 further comprising the steps of:

e) ranking said nodes of the plurality of devices by severity of defects; and

f) including said ranking in said network audit information.

9. (Original) The method of Claim 1 further comprising the steps of:

e) storing network audit information for a first node of a first device of said plurality of devices on a computer readable medium; and

f) automatically accessing and transferring said network audit information for said first node in response to a request for additional information regarding said first node.

10. (Original) The method of Claim 1 further comprising the step of:

e) determining the types of devices in said network, wherein said network comprises a plurality of types of devices.

11. (Original) The method of Claim 10 wherein said step a) comprises the step of:

a1) basing a query to a device on said device type.

12. (Currently Amended) A method of performing an audit of network comprising a plurality of optical routing devices, said method comprising the steps of:

a) determining the nodes that each of said plurality optical routing devices comprises and determining for each said node its type, wherein said optical routing devices are operable to provide an interface between data transferred on an optical communication link and a communication link which is not optical;

b) based on said node type, issuing a command to retrieve the status of each said node of each of said plurality of optical routing devices;

c) analyzing the responses to said status queries according to rules tailored for said node type to create network audit information comprising a quantitative assessment for each node for at least two categories comprising faults, performance, capacity planning, and network configuration, wherein said quantitative assessment allows ~~analyzing comprises~~ determining a ranking of said nodes for either individual ones of said categories or a plurality of said categories ~~based on said rules~~; and

d) reporting said network audit information ~~including said ranking of nodes~~.

13. (Original) The method of Claim 12 wherein said step c) comprises the step of:

c1) determining if a critical condition exists in said network by applying pre-determined rules to said status queries, wherein said rules are based on the node type.

14. (Original) The method of Claim 12 wherein said step d) comprises the step of:

d1) providing advice based on said analysis, wherein corrective action to said network is assisted.

15. (Original) The method of Claim 12 wherein said step b) comprises the step of:

b1) repeating a query to at least one node of a first optical routing device of said plurality of optical routing devices at a pre-determined interval.

16. (Original) The method of Claim 12 wherein said node types are selected from the group consisting of: Dynamic Packet Transport (DPT), Packet Over Synchronous Optical Network (POS), and Optical Regenerators.

17. (Original) The method of Claim 12 wherein said step b) comprises the step of:

b1) issuing a command to retrieve status information from a node operable provide an interface for a Dynamic Packet Transport (DPT) network.

18. (Original) The method of Claim 12 wherein said step b) comprises the step of:

b1) issuing a command to retrieve status information from a node operable provide an interface for a Packet Over Synchronous Optical Network (POS).

19. (Original) The method of Claim 12 wherein said step b) comprises the step of:

b1) issuing a command to retrieve status information from a node operable to function as an optical regenerator.

20. (Currently Amended) A computer readable medium having stored thereon program instructions for implementing a method for performing an audit of an optical network, said method comprising the steps of:

a) from a single point in said optical network, querying a plurality optical routing devices to determine active nodes in each of said plurality of optical routing devices;

b) based on responses from each of said plurality optical routing devices, issuing a query to retrieve status information from said active nodes in each of said plurality of optical routing devices;

c) analyzing responses to said status queries to create network audit information, wherein said analyzing comprises:

determining, for ones of said active nodes, individual rankings for at least two of a plurality of categories comprising: faults, performance, capacity planning, and network configuration; and

determining a combined ranking of said ones of said active nodes for said at least two ~~in a plurality of~~ categories; and

d) reporting said network audit information including said individual rankings and said combined ranking of said active nodes ~~in the plurality of categories~~.

21. (Original) The computer readable medium of Claim 20, wherein said method further comprises the step of:

e) ranking said active nodes by severity of defects.

22. (Original) The computer readable medium of Claim 20 wherein said method further comprises the steps of:

e) reporting that a critical condition exists at a first active node; and

f) reporting that a warning condition exists at a second active node.

23. (Original) The computer readable medium of Claim 20 wherein said method further comprises the steps of:

e) reporting a trend of network data over time.

24. (Currently Amended) Means for automatically performing an audit of an optical network, comprising:

means for determining the device type for a plurality of optical devices in said optical network;

means, based upon said device type, for querying said plurality of optical devices to determine the nodes said plurality of optical devices comprise and for each said node its type;

means for determining an appropriate query for status information for a plurality of types of node in said optical network;

means for querying said nodes of said plurality of optical devices for said status information;

means for analyzing responses from said status inquiries according to sets of rules that are tailored for respective device types and respective node types, wherein said analyzing comprises determining a ranking of nodes of the plurality of optical devices, wherein said ranking comprises separate rankings for a plurality of categories including at least two of: faults, performance, capacity planning, and topology; and

means for organizing a display of network audit information, including said ranking of nodes of the plurality of optical devices, wherein

said network audit information is displayable with a common organization regardless of the type of device under analysis.

25. (Original) The means of Claim 24 further comprising:

means for rating the relative health of said optical network; and

means for ranking the relative health of a plurality of said nodes in said optical network.

26. (Original) The means of Claim 24 further comprising:

means for providing advice based on said analysis of said optical network.

27-28. (Cancelled)

29. (Previously Presented) The method of Claim 1, wherein said determining the ranking of nodes comprises calculating exception points that define levels of criticality.

30. (Previously Presented) The method of Claim 29, wherein said levels of criticality comprise thresholds assigned respective point values, wherein said ranking is based on said point values.

31. (Previously Presented) The method of Claim 30, wherein said ranking is further based on traffic.

32. (New) The method of Claim 1, wherein said ranking comprises a combined ranking that combines a plurality of said categories.

33. (New) The method of Claim 1, wherein said ranking comprises a combined ranking that combines at least three of said plurality of said categories.

34. (New) The method of Claim 1, wherein said ranking comprises a combined ranking that combines faults, performance, capacity planning, and topology.

35. (New) The method of Claim 1, wherein said d) comprises providing a report having separate quantitative assessments for system, media, and protocol.